

## ABSTRACT

The present invention discloses an electromechanical traversing step system for transporting elderly users 12, infirm and others between floors of a building. A single moveable step 14 ascends or descends on a set of tracks 16 secured to the wall of the stairway 18 or the staircase structure above the flight of stairs 20. Travel is initiated by the user 12 positioning themselves on the movable step 14, selecting the ascension 22 or descension 24 switch and then gripping the handrails. Motion of the step commences and continues when a pressure sensor 26 responds to a force on the step 14 and the omic resistance of the user 12 is detected by sensors 28 in each of the handrails. Ascending motion continues until the tread of the movable step 14 is flush with the upper floor 30. The movable step 14 automatically returns to the docked position 32 at the bottom 34 of the staircase 18 once the user 12 departs from the step to the upper floor 30. The movable staircase must return to the docked position 32 on the lower floor to provide a conventional staircase for traversing by foot. The movable step 14 may be returned to the upper floor 30 by pressing the step call-up switch 36, which overrides the handrail 28 and step pressure 26 sensors and allows the movable step 14 to ascend without the user holding the handrails.